

Chapter 4: *Agnus Dei*

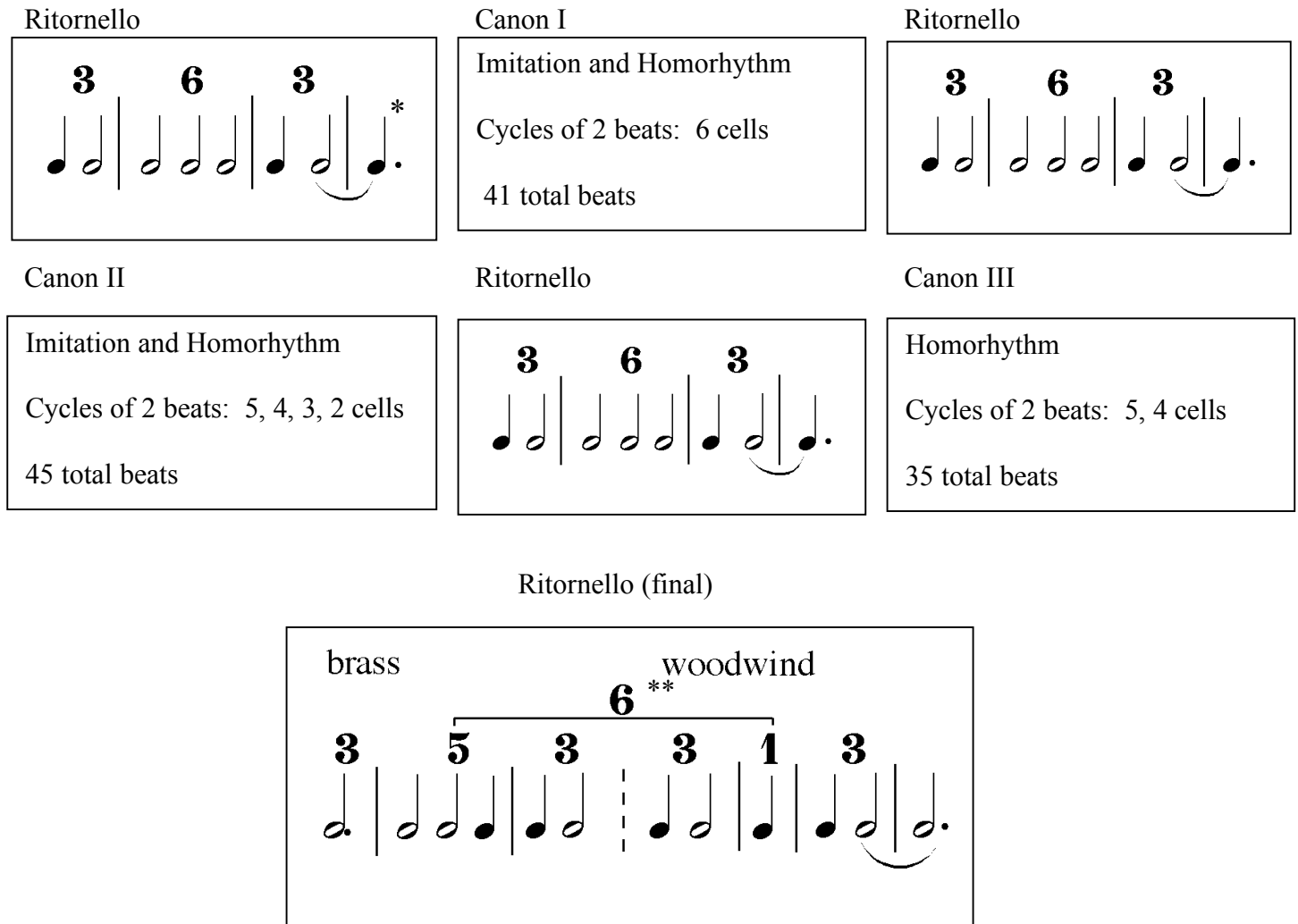
Frequent and definable use of intervals in the 0257 and 0134 tetrachords, trichord subsets of these tetrachords, and the scales and tonal areas derived from their interaction dominates harmonic and melodic relationships in the *Mass* and plays an important organizational role in the *Agnus Dei*. However, Stravinsky refines his approach to both harmony and rhythmic/metric blocks in the movement. Rhythmic/metric blocks in the *Agnus Dei* create sharply-defined instrumental ritornello and choral canon sections, the bulk of the movement occupied by the choral canon. In addition to tetrachord-based harmonic construction, intervals in the canon undergo strict imitation. Both the tetrachordal organization and the harmonic organization of the canon subsist on interaction between specifically defined intervals, but the intervallically-defined canon hones the power of the construct-centric compositional process. Through clearly defined and repetitive rhythmic/metric blocks and through tetrachord interaction and intervallic imitation in the canon, the *Agnus Dei* proves the most strictly organized movement in the work.

Formal Definition: Ritornello and Canon

The form of the *Agnus Dei* includes four short instrumental ritornelli and a 29-measure choral canon divided into three portions. As Figure 4.1 demonstrates, the ritornelli maintain a tightly constructed symmetry based upon three rhythmic cells of 3 beats, 6 beats, and 3 beats respectively (the final ritornello is an elaboration on that pattern). Repetition of the ritornello helps to define form in the *Agnus Dei*, and repetitive rhythm defines form inside the ritornello. The canonic segments, on the other hand, vary

in overall length and rhythmic makeup. Again, Figure 4.1 shows that the ritornelli provide contrast with the canonic sections. These canonic sections proceed through imitation and homorhythm in variant cycles.

Figure 4.1 *Agnus Dei* Large-Scale Form: ritornello and canon



*=the extra beat and a half at the end of each ritornello rhythmic figure reflects importantly on the harmonic organization of the ritornello but less-importantly on the rhythmic organization shown in this diagram. Rhythmically it has the effect of a fermata. The same holds true for the three beats at the end of the final ritornello.

**=The combination of the inner beats of the final ritornello create a similar pattern to the first three ritornelli. Instead of six inner beats found in the 3/2 measure, however, a combination of two internal six-beat patterns unfold. The first through a connection of the five beats in the middle of the brass section and the one beat that centers the woodwind section, and the second through a combination of the end of the brass section and beginning of the woodwind. The pattern 3-6-3 therefore unfolds as 3—5+1 and 3+3—3.

The ritornello contains fourteen beats. The final two beats act as a harmonic extension of the last chord, but do not influence rhythmic organization. Rhythmically, therefore, the ritornello is divided into three sections; 1) three beats ($\frac{3}{4}$ meter), 2) six beats ($\frac{3}{2}$ meter) and 3) three beats ($\frac{3}{4}$ meter). The two $\frac{3}{4}$ measures share emphasis on the second beat of the measure, the first by stopped motion on the second beat, and the second by a decrescendo that begins on the third beat, thereby emphasizing the second beat. Therefore, the rhythmic repetition in the second $\frac{3}{4}$ measure provides closure. The $\frac{3}{2}$ measure proceeds in three two-beat pulses that bring regularity to the center of the ritornello, and contrast to the $\frac{3}{4}$ measures. The ritornello, thus, provides rhythmic predictability, and defines the large-scale form of the movement by rhythm and repetition.

The final ritornello reflects an elaborated version of the first three. In the first three ritornelli, metric irregularity provides foreground interest while rhythmic symmetry provides background stability. In the final ritornello, Stravinsky switches the dichotomy, so that the rhythm provides for the foreground and the stable $\frac{2}{4}$ meter the background. Similar symmetry results in the final ritornello, but with a few important differences. The final ritornello splits the brass and woodwind choirs into two-measure blocks (instead of the four-measure blocks of the first three that has all ten instruments play simultaneously). Each block in the final ritornello produces its own truncated version of the original four-measure passage.

Both of the final blocks open and close with three-beat cells, as is seen in the “Ritornello (final)” portion of Figure 4.1. The three-beat cells in the brass phrase surround a five-beat cell (3+2) and the three-beat cells in the woodwind phrase surrounds

a 1-beat cell. The two inner phrases together equal six beats, thereby yielding the same 3+6+3 symmetry, but split into two choirs. In addition the two combined represent a single elongated phrase with three-beat cells on either end of two six-beat cells, notated with a bracket in the figure.

A final important element in formal definition is durational contrast. The ritornello maintains a consistent length, but the canon proceeds irregularly. Each ritornello is fourteen beats long (with the exception of the final one). The three sections of the choral canon contain 41, 45 and 35 beats respectively. Therefore, the ritornello establishes a point of repose and regularity within the irregular length and execution of the canon.

Canon

The three separate canonic sections are organized by rhythmic imitation and homorhythm. Each canon has a foreground meter that changes frequently. The rhythm also changes but in a series of patterns of two- and three- beats, or cell cycles. This pattern recalls the 3-2 beat alternation in the B section of the *Gloria* but with less regularity. The specific two- to three-beat pattern organization depends largely upon cell cycles (see Example 4.1).

The first two canonic sections include rhythmic imitation, as shown at rehearsal 56 in Example 4.1. The first canon begins with a rhythmic cycle that includes six two-beat cells. The upper parts initiate the cycle, which is imitated exactly in the lower parts two measures later. The second point of rhythmic imitation begins at rehearsal 60 with the upper parts and contains cells of both two and three beats. In all, this rhythmic cycle

begins at rehearsal 60 and contains four two-beat cells and two three-beat cells. The lower parts begin on the off beat of the upper part's second two-beat cell, thus creating syncopation.

At most other points in the canonic passages, all parts move in homorhythm, but continue to create cycles. The full collection of these rhythmic cycles from beginning to end creates a series of decreasing two-beat cells that moves from large to small before beginning again. These cycles include collections of 6 cells (Reh. 56), 5 cells (Reh. 59), 4 cells (Reh. 60), 3 cells (2 b/f Reh. 61), 2 cells (Reh. 62), back to 5 cells (3 a/f Reh. 62), and 4 cells (Reh. 63). Here we see Stravinsky using the same rhythmic/metric foreground/background procedure but with a twist. Instead of a mixed meter and steady rhythm, he uses a mixed meter and patterned rhythm, one that references the imitative element of his compositional process, the canon.

Example 4:1 *Agnus Dei* canon: rhythmic imitation, homorhythm, and two- to three-beat cell cycles interspersed with ritornello rhythm.
 Canonic entries marked in large numbers

The musical score is divided into three systems. The first system includes parts for Discanti, Alti, Tenori, and Bassi. The second system continues the vocal parts and introduces the Oboe I, II. The score is characterized by frequent time signature changes and complex rhythmic groupings. Key markings include:

- Reh 56** and **Reh 57** at the top of the first system.
- homorhythm** markings above the Discanti and Alti staves in the first system.
- imitation: 6 cells** markings under the Alti and Bassi staves in the first system.
- SA:** and **TB:** markings with rhythmic values (2, 3) under the Alti and Bassi staves respectively.
- ritornello** and **Reh 59** markings at the start of the second system.
- exact note imitation** marking between the Alti and Bassi staves in the second system.
- 5 cells** marking under the Bassi staff in the second system.
- homorhythm** marking above the Discanti staff in the second system.
- 3**, **6**, and **3** markings above the Oboe I, II staff in the third system.

Example 4.1 (continued)

Reh 60

homorhythm

imitation: 4 cells

exact note imitation →

imitation: 4 cells

3 cells

ritornello

Reh 62

homorhythm

Reh 63

2 cells

5 cells

4 cells

Oboe I, II

Detailed description of the musical score: The score is divided into three main sections: Reh 60, Reh 62, and Reh 63. Reh 60 consists of four staves. The top two staves are for a string quartet, and the bottom two are for a string quartet. The time signature changes from 3/2 to 3/4 to 2/4 to 3/2. Annotations include 'homorhythm' (a bracket over the first two staves), 'imitation: 4 cells' (a bracket under the first two staves), and 'exact note imitation' (an arrow pointing to the third staff). Reh 62 consists of four staves. The top two staves are for a string quartet, and the bottom two are for a string quartet. The time signature changes from 3/2 to 3/4 to 2/4 to 3/2. Annotations include 'ritornello' (a dashed line on the left) and 'homorhythm' (a bracket over the first two staves). Reh 63 consists of four staves. The top two staves are for a string quartet, and the bottom two are for a string quartet. The time signature changes from 3/2 to 3/4 to 2/4 to 3/2. Annotations include '2 cells' (a bracket under the first two staves), '5 cells' (a bracket under the first two staves), and '4 cells' (a bracket under the first two staves). The Oboe I, II part is at the bottom, written on a single staff. It has a '3' annotation above it.

Harmony, Melody, and Voice Leading in the Ritornelli

The *Agnus Dei* ritornelli provide a clear example of the construct-centric organizational process described in Chapter Two and shown by example in Chapter Three. Two 0257 tetrachords organize the notes in the ritornelli in tight succession. In addition, four 013 trichords and one 014 trichord dictate voice leading around a central sonority that itself is a combination of the 0257 tetrachords and 013/014 trichords. The notes in these chords articulate the D b7 ordering of the diatonic octad (DEF#GABCC#) and create two tonal areas on either side of the central sonority.

The notes of the GACD tetrachord create a framework for the four-bar ritornello. Example 4.2a shows that these four notes appear as diads with CG to open the passage and DA to close it.

Example 4.2a *Agnus Dei* rehearsal 55: ritornello framework CG : DA

Framework

The musical notation for the ritornello framework is presented in two staves. The top staff is in treble clef and the bottom staff is in bass clef. Both staves are in 3/4 time. The notation shows a sequence of four measures, each containing a chord. The first measure contains a triad of C, G, and A. The second measure contains a dyad of G and A. The third measure contains a triad of A, C, and D. The fourth measure contains a dyad of C and D. The time signature is 3/4, indicated by a '3' over a '4' in the first measure of each staff.

C and D dominate the bass line, moving from C priority to D priority. The passage ends with D and A, first in trombones II and III, and, two beats later, in the bassoon and English horn. In both the first and last chords, upper parts coordinate with the bass notes

to highlight GACD. The B in the center of the passage coordinates with the 013 motion described later.

Example 4.2b *Agnus Dei* rehearsal 55: ritornello C(G)D(A) bass line

The musical notation consists of two staves. The top staff, labeled 'Framework', is in treble clef and 3/4 time, showing four measures with a single chord (C major) in each measure. The bottom staff, labeled 'Bass line', is in bass clef and 3/4 time, showing a sequence of notes: C (half note), G (quarter note), D (quarter note), A (quarter note), C (half note), G (quarter note), D (quarter note), and A (quarter note). The notes are connected by a horizontal line, indicating a continuous melodic line.

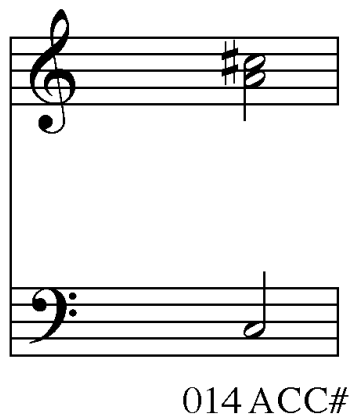
The GACD and DEGA tetrachords provide melodic interest throughout the four-measure passage. DEGA begins with EA in the oboe parts of the first chord, and ends with DA in conjunction with GACD on the final chord. Two melodic patterns in Example 4.2c show the importance of DEGA to the ritornello. The first, found in the oboe 1 part, proceeds in half notes and plays the highest line of the passage (see Example 4.2c, treble clef, second measure half notes). The second, found in the oboe 2, proceeds in quarter notes and plays an octave below the oboe 1 part until the end of the second measure when they join on A. GACD, found melodically in the trumpet I and II parts, mirrors the oboe 1 part in rhythm and range (it is notated down an octave in Example 4.2c for clarity). In each case the melodic lines move in whole steps and perfect 4th/5ths.

Example 4.2c *Agnus Dei* rehearsal 55: ritornello 0257 melodic

The image displays a musical score for a section of *Agnus Dei*. It consists of two staves: the top staff is labeled 'Framework 0257 Melodic' and the bottom staff is labeled 'Bass line'. The top staff is in treble clef and the bottom staff is in bass clef. The music is written in 3/4 time, with a key signature of one flat (B-flat). The melody in the top staff is composed of eighth and quarter notes, with some chords. The bass line in the bottom staff is primarily composed of half notes and quarter notes, with some rests. The score is divided into four measures by vertical bar lines. The first measure has a 3/4 time signature, the second has a 3/2 time signature, the third has a 3/4 time signature, and the fourth has a 2/4 time signature.

The 013 and 014 trichords add a final layer of organizational support to the ritornelli. They intertwine particularly around the center of the passage and highlight the centricity therein. The ritornelli have fourteen beats (3+6+3+2), the center of which is the 8th beat, or, the third beat of the 3/2 measure. At this beat a shift occurs that transfers priority from the CG-defined area to the DA-defined area. The 8th beat central chord becomes a hub of activity in this short passage. On this beat each 0257 tetrachord (represented through AC-EA), 013 trichords belonging to the CG area (BCD and EFG) and the DA area (BC#D and AGF#), and the only 014 trichord (ACC#) commingle. The ACC# shown in Example 4.2d trichord is the core of the 8th beat central chord that focuses the passage.

Example 4.2d *Agnus Dei* rehearsal 55: ACC# 014 trichord as the core of the 8th beat central chord



The A occupies a central location under C# and above C. Two groups of 013 trichords provide motion toward and away from the 014 focal point, and account for the other two notes of the central chord, E and B. Each group accentuates the exchange from CG to DA across the center point. EFG changes to EF#G (followed by AGF#) and BCD changes to BC#D in the upper parts (BCD continues in the bass line because of its essential 013 supporting role). The BCD-BC#D exchange occurs closest to the 014 chord.

Example 4.2e *Agnus Dei* rehearsal 55: ritornello 013 BCD-BC#D exchange Around the ACC# central core



Example 4.2e demonstrates how the D occurs in the chord immediately before and immediately after the central chord. The B-C and B-C# diads function in a similar manner to the ACC# trichord. B acts as a center point below C# and above C. The low D leads to the C over which B completes the trichord. Likewise, B and C# combine with the C#-D diad found in the oboe 1 to complete the BC#D trichord. E also centers the EFG-EF#G (AGF#) motion as a member of the central chord.

Example 4.2f *Agnus Dei* rehearsal 55: ritornello 013 EFG-EF#G (AGF#) exchange
Around the ACC# central core

EFG-EF#G (AGF#)
BCD-BC#D
ACC#

EFG and EF#G extend further away from the 014 trichord to the first and last measure of the ritornello. Example 4.2f demonstrates that even with a third and more extended layer of notes, the passage remains symmetrical around the 8th beat chord. EFG occupies upward-moving lines toward the central chord. G sounds immediately before the chord, E as a part of the chord, and F# translates focus from CG to DA on the beat following. AF#G mirrors the melodic line found in the EFG trichords prior to the central chord, but

moves away from it in a downward-moving line. A composite diagram of harmonic framework, bass line, 0257 melodic, and 013 melodic motion around the 014 central core chord reveals a complex construction built on the two constituent tetrachords of the work.

Figure 4.2g *Agnus Dei* rehearsal 55: composite construction: framework, bass line, 0257 melodic, 013 melodic and 014 central chord

The musical score consists of two staves. The top staff, labeled 'Framework 0257 Melodic', is in treble clef and 3/4 time. It shows a series of chords and melodic lines, including a D major chord (DF#A) and a D b7 diatonic octad (DEF#GABCC#). The bottom staff, labeled '013/014 Bass line', is in bass clef and 3/4 time. It shows a series of chords and melodic lines, including a D major chord (DF#A) and a D b7 diatonic octad (DEF#GABCC#). The score is a composite construction of harmonic framework, bass line, 0257 melodic, and 013 melodic motion around the 014 central core chord.

In the opening measure of the ritornelli, the oboe I and II parts play CG. The passage ends with an unadorned D major chord (DF#A), through which the DA(D) perfect fourth/fifth accentuate the 0257 tetrachord. In the center of the passage EFG and BCD change to EF#G and BC#D. The combination of these notes and the notes that surround them creates the D b7 diatonic octad (DEF#GABCC#). More importantly, however, the harmonic framework and melodic lines create two distinct tonal areas, one on each side of the central trichord. The notes prior to the central chord all belong to the C major scale (CDEFGABC) and those following the center belong to the D b7 octad. Neither has a strong degree of priority over the other, but, the method of interchange underscores two principle factors in the *Mass*: 1) Stravinsky uses organizational tetrachords to create tonal areas and 2) through rhythmic/metric formal blocks he

neutralizes the priority of one tonal area over another. In this case, he does so through the symmetrical placement of each tonal area around a central chord that is a combination of principal notes found in each one. The organization of these notes reveals tetrachord-based construction instead of fulfilling diatonic expectation.

Example 4.3 *Agnus Dei* Ritornello: Central Chord, Scales and Tonal Areas

The musical score for Example 4.3, *Agnus Dei* Ritornello, features seven instrumental parts: Oboe I, II; Corno Inglese; Fagotti I, II; Trombi in C I; Trombi in C II; Tromboni I; and Tromboni II, III. The score is divided into three measures, each with a specific time signature: 3/4, 3/2, and 2/4. The first measure is labeled 'C tonal area' and the second 'D tonal area'. The third measure is labeled 'CG' and 'CDEFGAB'. The fourth measure is labeled 'EFG-EF#G', 'D-CBC#-D', and 'ACC#'. The fifth measure is labeled 'DA' and 'DEF#GABCC#'. The score includes various musical notations such as notes, rests, and accidentals, with some notes boxed to highlight specific tonal areas.

C tonal area

D tonal area

Oboe I, II

Corno Inglese

Fagotti I, II

Trombi in C I

Trombi in C II

Tromboni I

Tromboni II, III

CG
CDEFGAB

EFG-EF#G
D-CBC#-D
ACC#

DA
DEF#GABCC#

Internal Connection in the Choral Canon

Stravinsky uses canon as a surface compositional element in the *Mass* three different times prior to the *Agnus Dei*. Each previous time he uses the canon as a form-generating rhythmic element. In them he intertwines 0257 and 0134 tetrachords with Renaissance counterpoint technique to explore rhythmically-established, surface-defined canonic passages. These same practices apply to the *Agnus Dei* canon, with two important differences. In regard to form, the *Agnus Dei* canon influences the entire movement, operating in conjunction with the ritornello. Other instances of canon in the *Mass* occur singularly within a given movement, influencing local form only. Secondly, Stravinsky relies on intervallic imitation to organize the choral canon. Harmonically, in the other canonic passages, Stravinsky composes imitative melodies based upon the tetrachords (0257 in the *Kyrie* and *Credo*, and 0134 and 0257 in the *Sanctus*). Although he uses rhythm, meter, 0257 and 0134 tetrachords as important organizational elements in the *Agnus Dei*, another organizational layer supercedes them. In the *Agnus Dei* canon, Stravinsky uses four vocal parts to create a two-part canon through vertical intervallic imitation rather than horizontal melodic imitation (see Example 4.5).

The soprano and alto parts function as a single “voice,” juxtaposed with the tenor and bass parts that also work together. The “parts” in the two-part canon then are 1) SA and 2) TB. This specific reading is necessary because it is the interval content between vertical sonorities that determines the organization. In the following explanation, intervals have been reduced to their interval-class so that any interval greater than a tritone (ic 6) has been reduced to its smaller equivalent (e.g. a major 6th, ic 9, has been reduced to ic 3—a minor 3rd). The following analysis shows that Stravinsky composed

with intervals in this way in order to create a tightly-controlled canon. This reveals a systematic compositional technique, a process that impacts the tetrachord organizational theory because it displays another analogous intervallic compositional construction within the same work.

Example 4.5 *Agnus Dei* rehearsals 56-57: Canon I Interval Class Connection

The musical score for Example 4.5, *Agnus Dei* rehearsals 56-57: Canon I Interval Class Connection, is presented in two systems of four staves each. The first system shows a sequence of intervals (P4, M7, P5, m3, M2, M3, P5, P4, m7, P5, P4, P4) and fingerings (a) 5 1 5 3 2 4 and b) 5 5 2 5 5. The second system shows a sequence of intervals (m3, M3, m3, m2, m6, P5, m3) and fingerings (c) 3 4 3 1 4 5 3. Arrows indicate the connection between the two systems.

In the *Agnus Dei* canon, the imitative part (TB during the first choral section) exactly imitates the interval-class organization of the first part. For example, the SA part opens with the intervals P4 (GC), M7 (CB), P5 (DA), m3 (EG), M2 (EF#), M3 (DF#). The interval-classes are P4=5, M7=1, P5=5, m3=3, M2=2, M3=4 (5 1 5 3 2 4). The TB part opens with the intervals P4 (FBb), M7 (BbA), P5 (CG), M6 (FD), m7 (ED), m6 (EC). The interval-classes are P4=5, M7=1, P5=5, M6=3, m7=2, m6=4 (5 1 5 3 2 4). Although the specific intervals differ (P4, M7, P5, m3, M2, M3 vs. P4, M7, P5, M6, m7, m6), the interval classes are identical (5 1 5 3 2 4). Stravinsky maintains this process throughout the choral sections of the *Agnus Dei*. Moreover, he ties the sections together across ritornello interjections through the same method (see Example 4.6). For example, the SA in the first choral section ends with the ic set (1 3 3 3 5 3). The TB part which opens the second choral section begins with ic set (1 3 3 3 5 3).

Example 4.6 *Agnus Dei* rehearsals 57 and 59: Interval Class connection across ritornello

SA at 3 after 57

TB at 59

In the two instances where Stravinsky ties the choral sections together across the ritornelli he uses either the same pitches or their octave equivalents (thereby creating the same ic sets). Both times, however, he manipulates the pitches through rhythm. By using the same pitches he unifies the canon otherwise cut in two by the ritornello passage. The rhythmic changes certify that rhythm and meter supercede harmony in the *Mass*, for, by slightly changing the rhythm Stravinsky invigorates the same harmonic/melodic passages and convinces the listener that they are hearing new material.

In the final choral section Stravinsky begins both parts simultaneously, but continues to use the same practice of interval-class organization. The second choral section ends with the TB part singing the intervals (5 1 3 0 2 3 3 2 5 5). The TB part opens the third choral section with these intervals (5 1 3 0 2 3 5). Unlike the first transition, this interval class order is not exact. Stravinsky eliminates repeated intervals, and the major 2nd three intervals from the end and writes separate pitches on the final two intervals of the new canon. However, the close similarity creates the same sense of connection that the exact interval class order would have (see Example 4.7).

Example 4.7 *Agnus Dei* rehearsals 60 and 62: Interval Class connection across ritornello

TB at 4 after reh. 60

TB at reh 62

The interval-class pattern within the third canon differs slightly from the other two as well (see Example 4.8). After six notes the SA part sings the same interval-class order that the TB part sings (pattern a) 5 1 3 0 2 3 5 3 4 3 3) and continues this pattern until two notes from the end. In addition, the opening notes of the SA part, save two, (pattern b) 2 2 1 1 4 1) become the next notes in the TB part (5 1 3 0 2 3 5 3 4 3 3 1 1 4 1). Although some notes remain unaccounted for in the interval-driven canon, these that remain unaccounted for play an important role as concluding sonorities to the *Agnus Dei*, and more importantly, to the *Mass*. This important point will be explored below.

Example 4.8 *Agnus Dei* rehearsals 62-63: Canon III: Interval Class connection

The image displays two systems of musical notation for Canon III of the *Agnus Dei*. Each system consists of four staves: two vocal staves (Soprano/Alto and Tenor/Bass) and two piano accompaniment staves (Right and Left Hand). The time signature changes from 3/2 to 3/4 and back to 3/2. Interval class labels (M2, m9, M3, m2, P5, m3, PU, m10, P8, m7, M6, m6, M3, M7, m9, M10) are placed below the notes to indicate the intervals between consecutive notes. Pattern labels 'a)' and 'b)' are used to group specific sequences of interval classes. Pattern 'a)' is 5 1 3 0 2 3 5 3 4 3 3, and pattern 'b)' is 2 2 1 1 4 1. The piano part includes a bass clef and a '8' indicating an octave shift.

Agnus Dei Conclusion: Tetrachord Intervals Prominent As Concluding Sonorities

The final measures of the *Mass* reveal Stravinsky's commitment to and dependence upon the 0134 and 0257 tetrachords. In both the final choral canon and instrumental ritornello, he focuses full attention upon complete statements of the tetrachords. This focus solidly reveals his use of these two pc sets as important note-generating sets in the *Mass*.

Example 4.9 *Agnus Dei* rehearsal 63: 0134 as concluding sonority

The image displays a musical score for Example 4.9, *Agnus Dei* rehearsal 63, focusing on the 0134 tetrachord as a concluding sonority. The score is written for three staves, each in 3/2 time. The first staff is in treble clef, the second in treble clef, and the third in bass clef. The key signature is one sharp (F#). The score is divided into three measures, each containing a tetrachord interval. The first measure is labeled 0134 (DD#E#F#), the second 0134 (C#DEE#), and the third 0134 (G#ABB#). The notes are: Measure 1: D4, D#4, E#4, F#4; Measure 2: C#4, D4, E4, E#4; Measure 3: G#3, A4, B4, B#4. The notes are grouped by brackets and labeled with their respective tetrachord sets.

The final notes of the TB part in the third choral section (highlighted with a box in Example 4.9) create the complete G#ABB# 0134 tetrachord. The final two intervals of the SA part are major 3rds (C#E#) that when combined with notes from the four previous chords create two more complete 0134 tetrachords; C#DEE# and DD#E#F#. That Stravinsky reserves this location at the end of the choral music in the *Mass* (the first of two conclusions) for the last complete statement of the 0134 tetrachord underscores its prominence.

The intervals unaccounted for by Stravinsky at the end of the canonic pattern may be accounted for when understood as the interaction between three 0134 tetrachords and a single 0257 tetrachord. Example 4.10 below shows that the notes in the last four choral measures create a complete octatonic collection II (ABB#DD# E#F#G#). Collection II alone, however, does not account for two of the notes in the passage, E and C#. In addition to the collection II octatonic scale, the A #4 octad (ABC#DD#EF#G#) grows from the constituent tetrachords and highlights the opening notes in the soprano and alto lines, the ABDE tetrachord. ABDE and the three 0134 tetrachords discussed above are shown in Example 4.10. They act as representatives of the A #4 octad and collection II octatonic scale. Together, the octad and octatonic scale combine to create A and C# tonal areas that exist simultaneously. The A priority seems strongest at the beginning of the four-measure passage owing to the frequency of A major 7th chords, and, likewise, at the end the C# major 7th chord demands focus.

Example 4.10 *Agnus Dei* rehearsal 63: collection II and A #4 octad, A and C# tonal areas

A #4 octad: ABC#DD#EF#G#

ABDE DD#E#F#

C#DEE#

G#ABB#

octatonic collection II: ABB#DD#E#F#G#

A tonal area C# tonal area

Tonal Areas From a Simplified Scale

Whereas the final choral canon ends with three complete statements of 0134, the final ritornello ends with a complete statement of 0257. Here, instead of all ten instruments playing simultaneously, Stravinsky breaks the instruments into two five-instrument ensembles by family. Further, the final ritornello is one bar longer than the others to allow for both instrument groups to play a complete, if truncated, version of the opening ritornelli. The brass phrase closely resembles the other ritornelli in shape and note content. The woodwind phrase, on the other hand, importantly omits the notes C# and F#, and therefore, does not refer to a diatonic octad. The following examples will

show how this omission reveals Stravinsky's deep commitment to construct-centric tetrachords.

As seen in Example 4.11a, the brass plays first among the two instrumental groups, moving from the solo trombone's C through a similar symmetry found in the other ritornello passages. The 013 trichord BCD still plays an important role as the bass line. In addition, the 11-beat brass phrase pivots around the 014 trichord ACC#, with a similar, but shortened, harmonic motion from EFG to EF#G (AGF#) and BCD to BC#D around the central chord. GACD also plays an important role as the passage opens with CG and closes with DA. Because these note combinations remain in tact, the brass phrase also contains the same two scales and tonal areas. The first, C, occurs prior to the ACC# chord, and contains the notes of the C major scale. The second, D, occurs after ACC# with the D b7 octad.

Example 4.11a *Agnus Dei* rehearsal 63: Final Ritornello, tonal areas around tetrachords and trichords in the brass

The musical score for Example 4.11a shows the brass section (Trumpet in C, Trombone 1, and Trombone 2, 3) in 3/2 time. The score highlights specific harmonic moments with labels: CG, DA, BCD-BC#D, and tonal areas C (CDEFGAB) and D (DEF#GABCC#).

Example 4.11b demonstrates the absence of C# and F# in the woodwind phrase. Unlike the brass entrance that matches the other ritornelli in content, the woodwind

phrase begins on the chord DADED (instead of CDEGB) as an extension of the final brass chord seen in Example 4.11a. The woodwinds proceed through similar voice leading patterns to the brass phrase led prominently by the bass line D-C-B-C-D. Like the brass, the woodwind phrase pivots on a trichord, but this time it is the 013 (BCD) instead of the 014 (ACC#) trichord. This pivot is crucial, for, without the C#, the dichotomous C major/D octad division is not established. Rather, all of the notes in the final woodwind phrase combine to create the C major scale by extension of the opening part of the brass phrase and the other ritornelli phrases. The notes of this scale (CDEFGAB) could be understood as D Dorian as well. Such a reading of the passage is underscored by the D-A fifth present in the first and last chords, and by the D-E-F-E-D melody in the oboe 1 part. However, the voice leading patterns found in the oboe 2, English horn, and bassoon 2 bring focus to C major with a final CG diad, the presence of the B leading tone and the major third, E.

The notes that create this tonal area ambiguity, and that reconcile it, are those of the 0257 GACD tetrachord. In Example 4.11b these notes appear in blocks, offset from the other notes. As can be seen, the English horn melody anchors the closing phrase with a complete statement of the 0257 tetrachord and that statement resolves into a harmonic 0257 tetrachord to end the work.

Example 4.11b *Agnus Dei* rehearsal 63: Final Ritornello, woodwind passage without C# or F#, 0257 as GACD

Oboe 1

Oboe 2

English Horn

Bassoon

0257 (GACD)

0257 (GACD)

CDEFGAB BCD-BCD CDEFGAB

C or D tonal area?

Does a lack of C# in the final two measures reveal a C tonal area, or does the voice leading lean the passage toward D Dorian? The answer is that through this final phrase of his composition, Stravinsky allows for both tonal areas in a passage by using a simplified tetrachordal basis and scale set (a single GACD tetrachord and C major instead of an octad or octatonic scale). He builds on an expectation established through the rhythmic/metric organization of the other ritornelli and in the brass phrase just a measure earlier and anchors this new, distilled woodwind phrase with the use of the GACD tetrachord. The 0257 tetrachord sounds as the final sonority, and by doing so underscores his organizational premise; that the 0257 and 0134 tetrachords are the basis of harmonic construction and that they allow for the creation of scales and the existence of tonal areas in frequent succession or simultaneously. The final chord is intentionally ambiguous as it

relates to the surface elements of scale and tonal area, just like the rest of the *Mass*, but in the simplest possible terms.

The *Agnus Dei*, therefore, presents two important distillations of Stravinsky's organizational construction. Through his use of interval-class as a compositional tool to create canon, Stravinsky shows his deep interest in the interval as an organizing element, the same interest that guides his use of tetrachords here and elsewhere in the *Mass*. He further exploits intervallic organization through simplification of the tonal area juxtaposition found in the ritornelli. He reduces it to a single diatonic scale to show how he is able to manipulate a simple seven note scale through a single 0257 tetrachord to create an equally weighted juxtaposition of tonal areas. The ambiguity of the tonal areas in the final two measures underscores the surface function of tonal references in the *Mass*. This surface tonal ambiguity contrasts with the 0257 and 0134 tetrachords as an organizing force as seen at the end of the choral and instrumental sections respectively where he concludes with not one, but six complete utterances of one of the two tetrachords.